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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Patent-ch@btlaw.com

Office Action Summary

Application No.

10/741,516

Applicant(s)

O'ROURKE ET AL.

Examiner

MICHAEL J. HICKS

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. Claims 1-24 Pending.

Response to Arguments

2. Applicant's arguments filed 9/17/2009 have been fully considered but they are not persuasive.

As per Applicants presented arguments, Examiner respectfully disagrees.

Examiner notes that Page 6, Lines 16-22 of Applicants Specification state "In contrast, the present invention allows asynchronous events notifications to be made in a connectionless manner with no requirement to maintain an open link between the client and server. By addressing commands to either the client-side service or the server-side service, one can effectively send commands or event notifications asynchronously. In this way, a browser type interface (or a client employing a browser mechanism to access services across the web, with or without a browser GUI being presented to the user) can asynchronously send commands or events using standard (connectionless) Internet-type connections. Similarly, such a browser interface can receive events notifications or commands as services provided on the client are addressed by the server, again without the necessity for dedicated connections to remain open." Examiner interprets this section of Applicants Specification to indicate that a standard internet connection is considered to be a non-dedicated communications channel as long as an open channel is not maintained between the client and the sever. Examiner further notes that Paragraph 131 of Putnam clearly state that the system of Putnam may be accessed through a web-browser interface. This disclosure makes it clear that the asynchronous communication which is performed is performed over a standard internet connection, which according to Examiners

interpretation of Page 6 of Applicants specification, qualifies the connection used by Putnam as a non-dedicated communications channel.

In light of the above arguments, the rejection of Claims 1-24 will be maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-24 rejected under 35 U.S.C. 102(e) as being anticipated by Putnam (U.S. Pre Grant Publication US 2008/0086564 A1 and referenced hereinafter as Putnam).

As per Claim 1, Putnam discloses method of providing a client computer with remote access to an application controlled by a server across a data network (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control applications contained in a communication application server (CAS) across a data network) without maintaining a dedicated communications channel between the client and the server (Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), comprising the steps of: a) providing a network addressable server-side service which executes one or more

predefined procedures to control said application in response to predefined application control commands received by the server over the network (Paragraphs 62 and 392 clearly indicate that services are provided at the server which are defined by scripts which identify the predefined application control commands.); b) providing a definition of said application control commands, said definition being accessible over the data network by a client to enable the client to provide an interface which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); c) providing a set of instructions for receipt by the client over the data network by the client which, when received and executed by the client, define a network addressable client-side service which executes one or more predefined procedures to generate notifications on the client in response to predefined notification commands received by the client over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) providing on the server an interface between the application and the data network which is effective to issue one or more of said notification generation commands in response to notifications of events received from the application, said events occurring and said notification generation commands issuing independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed

asynchronously.); whereby the server-side service provides a network addressable control service to enable the client to control said application on the server (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the client of events occurring in the application independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 2, Putnam discloses said server-side service and said client-side service are each provided as web services between a provider and a remote consumer (Paragraph 89 clearly indicate that the services may be implemented as web services.), the consumer of the server-side service being the client interface (Paragraphs 393-394 clearly indicate that the server side services are consumed by the clients over the data network.) and the consumer of the client-side service being the server interface (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is consumed by the CAS to create notifications on the client).

As per Claim 3, Putnam discloses the definition of said application control commands is a web services description language (WSDL) file provided on the server (Paragraph 392 clearly indicates that the definition is in WSDL.).

As per Claim 4, Putnam discloses said WSDL file includes said instructions which define said client-side web service (Paragraphs 392-394 clearly indicates that the services are defined in the WSDL definition which is received on the client side. As such, the client side service would be defined in the WSDL definition.).

As per Claim 5, Putnam discloses said WSDL file includes instructions for the client to access said instructions which define said client-side web service over the network (Paragraphs 392-394 clearly indicates that the services are defined in the WSDL definition which is received on the client side. As such, the client side service would be defined in the WSDL definition. Examiner notes that the access instructions must be present as the client accesses the definition.).

As per Claim 6, Putnam discloses said application is a computer telephone integration (CTI) application in communication with a telephony network, whereby the interface on the client enables a user of the client to control a device on said telephony network (Paragraphs 95 and 454-455 clearly indicate that the application may allow the user to control a device on a telephony network.) and the interface on the server enables the CTI application to issue notifications of telephony network events or state changes relating to the device to the user of the client (Paragraphs 95 clearly indicates that the service may be implemented for a STI application and Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS.).

As per Claim 7, Putnam discloses said data network is a packet switching network employing the transport communication protocol/internet protocol (TCP/IP) method of addressing packets from the client to the server and vice versa (Paragraph 41 clearly indicates that the network may be an IP network.).

As per Claim 8, Putnam discloses the data network is selected from a local area network, a wide area network, and the Internet (Paragraph 41 clearly indicates that the network may be wide area network.).

As per Claim 9, Putnam discloses said server is a web server running said application (Paragraph 44 clearly indicates that the server may be a web server running the application and that the application may be run on a computer in communication with the server.).

As per Claim 10, Putnam discloses said server is a web server and said application runs on a computer in communication with said server (Paragraph 44 clearly indicates that the server may be a web server running the application and that the application may be run on a computer in communication with the server.).

As per Claim 11, Putnam discloses a computer program product comprising a computer- readable storage medium encoded with machine readable instructions which, when executed on a computer which is connected to a data network and which has control of an application (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control

applications contained in a communication application server (CAS) across a data network), are effective to cause the computer to: a) provide a network addressable server-side service which executes one or more predefined procedures to control said application in response to predefined application control commands received by the computer over the network (Paragraphs 62 and 392 clearly indicate that services are provided at the server which are defined by scripts which identify the predefined application control commands.); b) provide a definition of said application control commands, said definition being accessible over the data network by a remote client to enable the remote client to provide an interface which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); c) provide a set of instructions for receipt by the client over the data network by the remote client which, when received and executed by the client, define a network addressable client-side service which executes one or more predefined procedures to generate notifications on the client in response to predefined notification commands received by the client over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) provide on the computer an interface between the application and the data network which is effective to issue one or more of said notification generation commands in response to notifications of events received from the application, said events occurring and said notification generation commands issuing independently of said application

control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the client to control said application on the computer (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the client of events occurring in the application, independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 12, Putnam discloses server having control over an application and comprising a network connection for enabling the server to connect to a data network, and a storage area comprising a computer-readable storage medium encoded with instructions which when executed are effective (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control applications contained in a communication application server (CAS) across a data network) to: a) provide a network addressable server-side service which executes one or more predefined procedures to control said application in response to predefined application control commands received by the computer over the network (Paragraphs 62 and 392 clearly indicate that services are provided at the server which are defined by scripts which

identify the predefined application control commands.); b) provide a definition of said application control commands, said definition being accessible over the data network by a remote client to enable the remote client to provide an interface which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); c) provide a set of instructions for receipt by the client over the data network by the remote client which, when received and executed by the client, define a network addressable client-side service which executes one or more predefined procedures to generate notifications on the client in response to predefined notification commands received by the client over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) provide on the computer an interface between the application and the data network which is effective to issue one or more of said notification generation commands in response to notifications of events received from the application (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the client to control said application on the computer (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the

client of events occurring in the application, independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 13, Putnam discloses a method of remotely controlling an application from a client computer across a data network, said application being under the local control of a server on the data network (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control applications contained in a communication application server (CAS) across a data network), without maintaining a dedicated communications channel between the client and the server (Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), comprising the steps of: a) receiving from the server a definition of application control commands which cause a network addressable server-side service to execute one or more predefined procedures to control said application (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); b) providing on the client an interface based on said definition which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users) and include interface generation instructions.); c) receiving a set of instructions over the data network, said set of instructions when received and executed

by the client defining a network addressable client-side service which executes one or more predefined procedures to generate notifications on the client in response to predefined notification commands received by the client over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) providing on the client said network addressable client-side service which monitors for receipt of said notification generation commands and which generates said notifications on the client in response thereto (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the client to control said application on the server (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the client of events occurring in the application independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 14, Putnam discloses said server-side service and said client-side service are each provided as web services between a provider and a remote consumer

(Paragraph 89 clearly indicate that the services may be implemented as web services.), the consumer of the server-side service being the client interface (Paragraphs 393-394 clearly indicate that the server side services are consumed by the clients over the data network.) and the consumer of the client-side service being the server interface (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is consumed by the CAS to create notifications on the client).

As per Claim 15, Putnam discloses the definition of said application control commands is a web services description language (WSDL) file provided on the server (Paragraph 392 clearly indicates that the definition is in WSDL)..

As per Claim 16, Putnam discloses said WSDL file includes said instructions which define said client-side web service (Paragraphs 392-394 clearly indicates that the services are defined in the WSDL definition which is received on the client side. As such, the client side service would be defined in the WSDL definition.).

As per Claim 17, Putnam discloses said WSDL file includes instructions for the client to access said instructions which define said client-side web service over the network (Paragraphs 392-394 clearly indicates that the services are defined in the WSDL definition which is received on the client side. As such, the client side service would be defined in the WSDL definition. Examiner notes that the access instructions must be present as the client accesses the definition.).

As per Claim 18, Putnam discloses said application is a computer telephone integration (CTI) application in communication with a telephony network, whereby the interface on the client enables a user of the client to control a device on said telephony network (Paragraphs 95 and 454-455 clearly indicate that the application may allow the user to control a device on a telephony network.) and the interface on the server enables the CTI application to issue notifications of telephony network events or state changes relating to the device to the user of the client (Paragraphs 95 clearly indicates that the service may be implemented for a STI application and Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS.).

As per Claim 19, Putnam discloses said data network is a packet switching network employing the transport communication protocol/internet protocol (TCP/IP) method of addressing packets from the client to the server and vice versa (Paragraph 41 clearly indicates that the network may be an IP network.).

As per Claim 20, Putnam discloses the data network is selected from a local area network, a wide area network, and the Internet (Paragraph 41 clearly indicates that the network may be wide area network.).

As per Claim 21, Putnam discloses a computer program product comprising a computer- readable storage medium encoded with machine readable instructions which, when executed on a computer which is connected to a data network, are effective to

cause the computer to: a) receive from a server across the network a definition of application control commands which cause a network addressable server-side service to execute one or more predefined procedures to control said application (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); b) provide on the computer an interface based on said definition which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the computer (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users) and include interface generation instructions.); c) receive a set of instructions over the data network, said set of instructions when received and executed by the client defining a network addressable client-side service which executes one or more predefined procedures to generate notifications on the computer in response to predefined notification commands received by the computer over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) providing on the computer said network addressable client-side service which monitors for receipt of said notification generation commands and which generates said notifications on the computer in response thereto (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the computer to control said application on the

server (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the computer of events occurring in the application independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 22, Putnam discloses a client computer for providing remote control over an application across a data network, comprising a network connection for enabling the client computer to connect to said data network, and a storage area comprising a computer-readable storage medium encoded with instructions which when executed are effective to cause the client to (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control applications contained in a communication application server (CAS) across a data network): a) receive from a server across the network a definition of application control commands which cause a network addressable server-side service to execute one or more predefined procedures to control said application (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); b) provide on the computer an interface based on said definition which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the computer (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end

users) and include interface generation instructions.); c) receive a set of instructions over the data network, said set of instructions when received and executed by the client defining a network addressable client- side service which executes one or more predefined procedures to generate notifications on the computer in response to predefined notification commands received by the computer over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) providing on the computer said network addressable client-side service which monitors for receipt of said notification generation commands and which generates said notifications on the computer in response thereto (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the computer to control said application on the server (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the computer of events occurring in the application independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 23, Putnam discloses a system comprising a client and a server connected across a data network, the client and the server each being provided with a storage area comprising a computer-readable storage medium encoded with instructions to allow asynchronous interaction between the client and server (Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), and the server having control of an application (Paragraph 62 clearly indicates that client computers (e.g. endpoints, embodied as personal computers as disclosed in Paragraph 40, may remotely access and control applications contained in a communication application server (CAS) across a data network), wherein: (I) the computer-readable storage medium of the storage area of the server is encoded with instructions which when executed are effective to cause the server to: a) provide a network addressable server-side service which executes one or more predefined procedures to control said application in response to predefined application control commands received by the server over the network (Paragraphs 62 and 392 clearly indicate that services are provided at the server which are defined by scripts which identify the predefined application control commands.); b) provide a definition of said application control commands, said definition being accessible over the data network by the client to enable the client to provide an interface which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); c) provide a set of instructions for receipt by the client over the data network by the client which, when received and executed by the client, define a network addressable client-side service which executes one or more predefined procedures to generate notifications on

the client in response to predefined notification commands received by the client over the network (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs 37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) provide on the server an interface between the application and the data network which is effective to issue one or more of said notification generation commands in response to notifications of events received from the application, said events occurring and said notification generation commands issuing independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); and (II) the computer-readable storage medium of the storage area of the client is encoded with instructions which when executed are effective to cause the client to: a) receive from the server across the network said definition of application control commands (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users).); b) provide on the client an interface based on said definition which formulates said predefined commands and addresses said commands to the server-side service in response to inputs to the client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users) and include interface generation instructions.); c) receive over the data network and execute said set of instructions which define a network addressable client-side service (Paragraphs 393-394 clearly indicate that the definitions are received by the end users over the data network, and Paragraphs

37, 133, 203, and 434 clearly indicate that the definitions include instructions to define a service which generates notifications over the data network when notification commands/messages are received over the data network.); and d) provide on the client said network addressable client-side service which monitors for receipt of said notification generation commands and which generates said notifications on the computer in response thereto Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.); whereby the server-side service provides a network addressable control service to enable the client to control said application on the computer (Paragraphs 393-394 clearly indicate that the server side services are controlled by the clients over the data network.), and the client-side service provides a network addressable notification service to enable the server to notify the client of events occurring in the application, said events occurring and said notification generation commands issuing independently of said application control commands received from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is able to be used by the CAS to create notifications on the client and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

As per Claim 24, Putnam discloses a method of providing an asynchronous interaction between a client and a server over a data network (Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), comprising the steps of providing Web Services on the server to be consumed by the client (Paragraphs 393-394 clearly indicate that the server side services are consumed by the clients over the data network.)

and providing Web Services on the client to be consumed by the server (Paragraphs 37, 133, 203, and 434 clearly indicate that the client-side notification service is consumed by the CAS to create notifications on the client), said Web Services on the client being defined in a set of instructions received by said client over said data network and executed by said client to implement said Web Services on said client (Paragraphs 393-394 clearly indicate that the application control command definitions are accessible over the data network to the clients (e.g. end users)), whereby each of the client and server acts as both a Web Services provider and a Web Services consumer (Paragraph 89 clearly indicate that the services may be implemented as web services. As noted above, each the client and server may act as a consumer and provider.), such that when acting as a consumer each can notify the other of events asynchronously by invoking a Web Services command (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), and wherein said asynchronous interaction is provided without maintaining a dedicated communications channel (Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.), and wherein the server notifies the client of events occurring independently of any notification received by the server from the client (Paragraphs 37, 133, 203, and 434 clearly indicate that the notification commands/messages are issued by the CAS and Paragraphs 141, 185, 443, and 487 all clearly indicate that the application services may be performed asynchronously.).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Hicks whose telephone number is (571) 272-2670. The examiner can normally be reached on Monday - Friday 9:00a - 5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached at (571)272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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